Channel Mitigation Monitoring Sheets I, II, III, AND IV

Monitoring Data Record

Project Title: Henderson Western Loop (U-2527) COE Action ID: 199708127

Stream Name: UT to Red Bud Creek DWQ Number: 031494
City, County and other Location Information: Henderson, Vance County
(Sta. 40+80 to 47+20)
Date Construction Completed: Water was turned into stream on 6/13/05. Planting was completed on 3/10/06.
Monitoring Year: (1) of 5
Ecoregion: 8 digit HUC unit 03010102
USGS Quad Name and Coordinates:
Rosgen Classification:
Length of Project: 2,592' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green, B. Johnson, B. Poole Date: 6/21/06
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@dot.state.nc.us

Consultant Information:
Name:
Address:
Telephone Number: Email address:

Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (1) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit States: NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5 year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site:
13 photo point locations, 2 photos at each
Dates reference photos have been taken at this site: 6/21/06

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference:

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: Stream is highly vegetated with herbaceous vegetation, which includes, lespedeza, cattails, *Juncus* sp., sedge, fennel, and various grasses. Hardwood vegetation included silky dogwood, black willow, sycamore, green ash, tulip poplar, willow oak, white oak, alder, and sweetgum. Planting was completed on the stream in March 2006.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

The stream is highly stabilized for the first year of monitoring. There is some minor bank erosion at approx. Sta. 40+90 but this area is stabilized with heavy herbaceous vegetation. According to the plan sheets it looks like the old channel was located in this area. The crossvane located at approx. Sta. 41+00 has water piping under the structure. The additional photo located at the end of the photo sequence shows this crossvane is still intact and no immediate corrective action is necessary.

Date Inspected	Sta. 40+90	Sta. 41+00	Station Number	Station Number	Station Number
Structure Type		Crossvane			
Is water piping through or around structure?		Water is piping under crossvane			
Head cut or down cut present?					
Bank or scour erosion present?	Minor Bank Erosion				
Other problems noted?					

NOTE: Attach separate narrative sheets to each monitoring report describing/discussing the overall monitoring results. Include the identification of specific problem areas/channel failures, estimated cause and proposed/required remedial action. This should include a brief discussion of any parameter that has changed significantly from as-built.

UT Red Bud Creek

Photo Point #1 (Upstream)

Photo Point #1 (Downstream)

Photo Point #2 (Upstream)

Photo Point #2 (Downstream) **Unavailable**

Photo Point #3 (Upstream)

Photo Point #3 (Downstream)

Year 1 Summer – June 2006

UT Red Bud Creek

Photo Point #4 (Upstream)

Photo Point #4 (Downstream)

Photo Point #5 (Upstream)

Photo Point #5 (Downstream)

Photo Point #6 (Upstream)

Photo Point #6 (Downstream)

UT Red Bud Creek

Photo Point #7 (Upstream)

Photo Point #7 (Downstream)

Photo Point #8 (Upstream)

Photo Point #8 (Downstream)

Photo Point #9 (Upstream)

Photo Point #9 (Downstream)

Year 1 Summer – June 2006

UT Red Bud Creek

Photo Point #10 (Upstream)

Photo Point #10 (Downstream)

Photo Point #11 (Upstream)

Photo Point #11 (Downstream)

Photo Point #12 (Upstream)

Photo Point #12 (Downstream)

Year 1 Summer – June 2006

UT Red Bud Creek

Photo Point #13 (Upstream)

Photo Point #13 (Downstream)

Crossvane @ Sta. 41+00